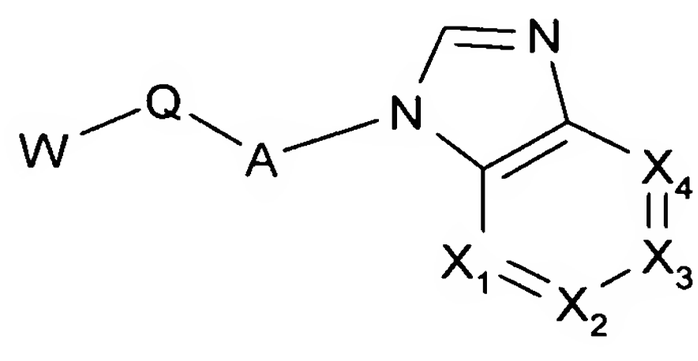
AMENDMENTS TO THE CLAIMS

Please amend the following claims:

1. (currently amended) A compound of the general formula I

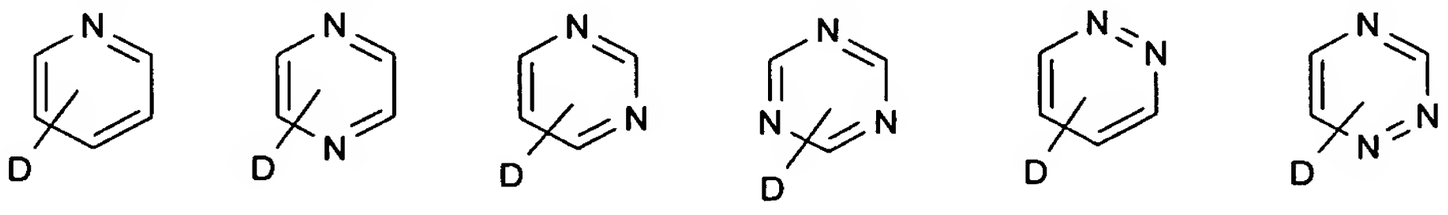


I

or pharmaceutically acceptable prodrugs, salts, hydrates, solvates, crystal forms or diastereomers thereof, wherein:

X_1, X_2, X_3, X_4 are each carbon where one is substituted with Z and the rest independently with Y; or one of X_1, X_2, X_3, X_4 is N, and the others are carbon where one carbon is substituted with Z and the rest independently with Y;

A is a ring selected from:



where D is selected from H, C_{1-4} alkyl, halogen, amino;

Q is a bond, halogen, C_{1-4} alkyl, O, S, SO, SO_2, CO, CS;

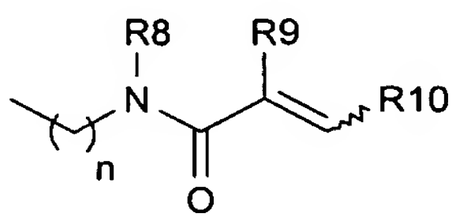
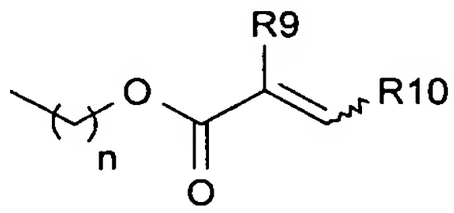
W is:

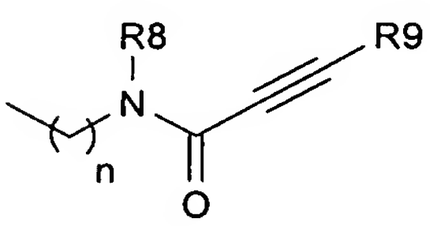
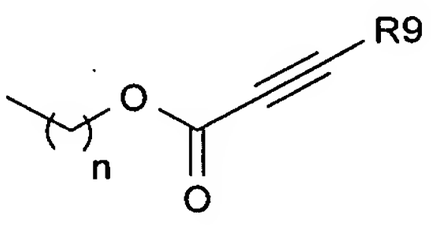
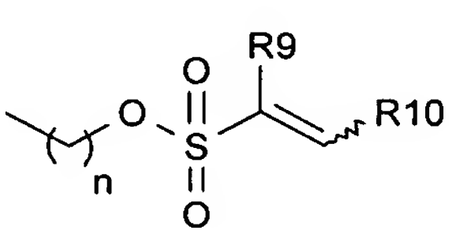
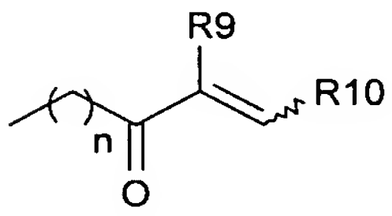
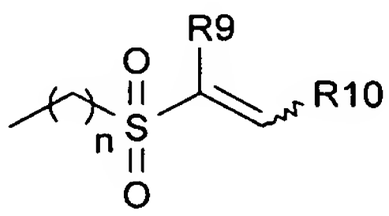
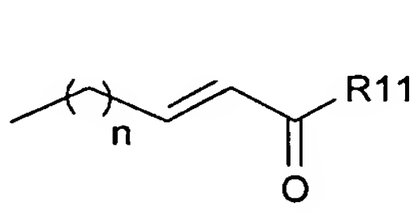
[[(ii)]] (i) NR1R2 where R1 and R2 are independently H, C_{1-4} alkyl, C_{1-4} alkylCF_3, aryl, hetaryl, C_{1-4} alkylaryl, C_{1-4} alkylhetaryl, C_{3-8} cycloalkyl, C_{2-6} alkenyl, cyclohetalkyl, C_{1-4} alkylcycloalkyl, C_{1-4} alkyl cyclohetalkyl, or R1 and R2 are joined to form an optionally substituted 3-8 membered ring optionally containing an atom selected from O, S, NR3; and R3 is selected from H, C_{1-4} alkyl, aryl, hetaryl, C_{1-4} alkyl aryl, C_{1-4} alkyl hetaryl, COR4 where R4 is selected from H, C_{1-4} alkyl, aryl, hetaryl; or

(ii) H, C_{1-4} alkyl, aryl, hetaryl, C_{3-8} cycloalkyl, cyclohetalkyl, C_{1-4} alkylaryl, C_{1-4} alkylhetaryl, C_{3-8} cycloalkyl, C_{1-4} alkylcycloalkyl, C_{1-4} alkyl cyclohetalkyl;

Y is H, halogen, CN, CF_3, nitro, OH, C_{1-4} alkyl, C_{1-4} alkylNR5R6, C_{1-4} alkylhetaryl, OC_{1-4} alkyl, OC_{2-4} alkylOC_{1-4}alkyl, OC_{1-4} alkylNR5R6, OC_{1-4} alkylhetaryl, OC_{1-4} alkylcyclohetalkyl, SC_{1-4} alkyl, SC_{2-4} alkylOC_{1-4}alkyl, SC_{1-4} alkylNR5R6, NR5R6, NR5COR6, $NR5SO_2R6$; and R5 and R6 are each independently H, C_{1-4} alkyl, or may be joined to form an optionally substituted 3-6 membered ring optionally containing an atom selected from O, S, NR7 and R7 is selected from H, C_{1-4} alkyl, aryl, hetaryl, C_{1-4} alkylaryl, C_{1-4} alkylhetaryl;

Z is selected from :

where R8 is selected from H, C_{1-4} alkyl;

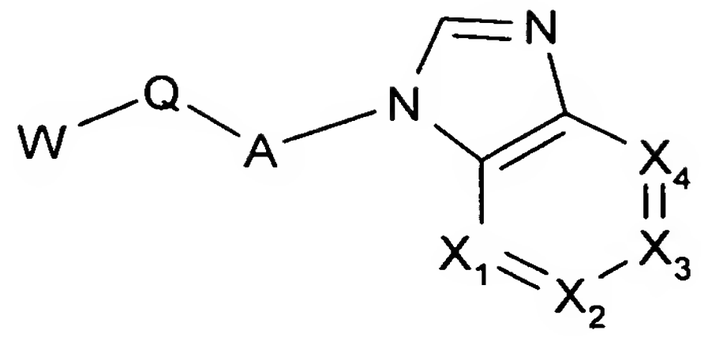
R9 and R10 are independently selected from H, C_{1-4} alkyl, C_{1-4} alkylNR12R13, C_{1-4} alkylOR12, C_{1-4} alkylhetaryl or may be joined to form a 5-8 membered ring ~~optionally~~ containing an atom selected from ~~O, S,~~ SO, or SO_2~~, NR14~~;

R11 is selected from OH, OC_{1-4} alkyl, NR12R13;

n is 0-4;

where R12 and R13 are independently selected from H, C_{1-4} alkyl, or may be joined to form an optionally substituted 3-8 membered ring optionally containing an atom selected from O, S, NR14; and R14 is selected from H, C_{1-4} alkyl.

2. (original) A compound according to claim 1 wherein the compound of formula I is a compound of formula II:

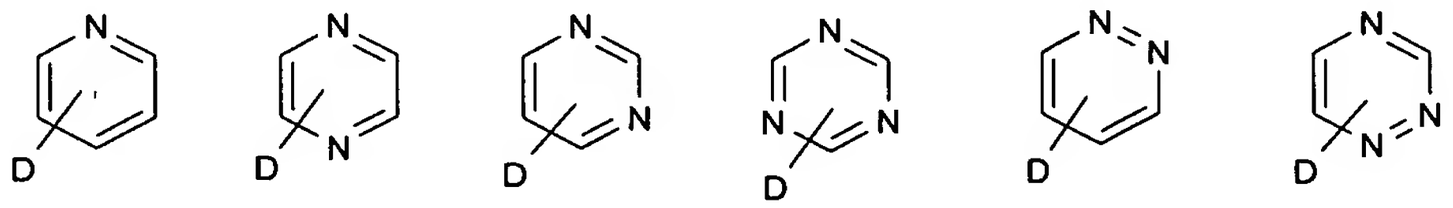


II

or pharmaceutically acceptable prodrugs, salts, hydrates, solvates, crystal forms or diastereomers thereof, wherein:

X_1, X_2, X_3, X_4 are each carbon where one is substituted with Z and the rest independently with Y; or one of X_1, X_2, X_3, X_4 is N, and the others are carbon where one carbon is substituted with Z and the rest independently with Y;

A is a ring selected from:



where D is selected from H, C_{1-4} alkyl, halogen, amino;

Q is a bond, halogen, C_{1-4} alkyl, O, S, SO, SO_2, CO, CS;

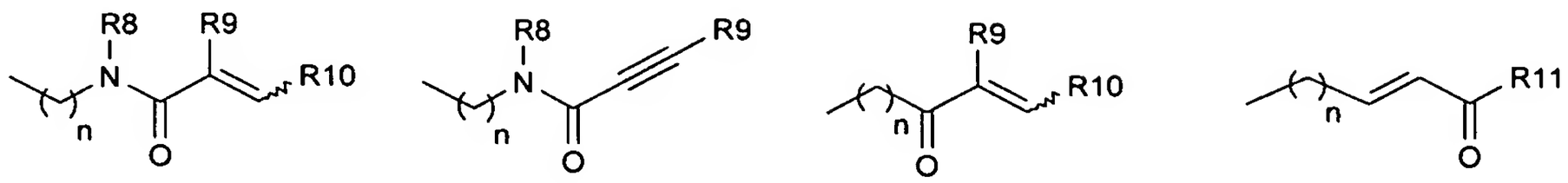
W is:

(i) NR1R2 where R1 and R2 are independently H, C_{1-4} alkyl, C_{1-4} alkylCF_3, aryl, hetaryl, C_{1-4} alkylaryl, C_{1-4} alkylhetaryl, C_{3-8} cycloalkyl, C_{2-6} alkenyl, cyclohetalkyl, C_{1-4} alkylcycloalkyl, C_{1-4} alkyl cyclohetalkyl, or R1 and R2 are joined to form an optionally substituted 3-8 membered ring optionally containing an atom selected from O, S, NR3; and R3 is selected from H, C_{1-4} alkyl, aryl, hetaryl, C_{1-4} alkyl aryl, C_{1-4} alkyl hetaryl, COR4 where R4 is selected from H, C_{1-4} alkyl, aryl, hetaryl; or

(ii) W is H, C_{1-4} alkyl, aryl, hetaryl, C_{3-8} cycloalkyl, cyclohetalkyl, C_{1-4} alkylaryl, C_{1-4} alkylhetaryl, C_{3-8} cycloalkyl, C_{1-4} alkylcycloalkyl, C_{1-4} alkyl cyclohetalkyl;

Y is H, halogen, CN, CF_3, nitro, OH, C_{1-4} alkyl, C_{1-4} alkylNR5R6, C_{1-4} alkylhetaryl, OC_{1-4} alkyl, OC_{2-4} alkylOC_{1-4}alkyl, OC_{1-4} alkylNR5R6, OC_{1-4} alkylhetaryl, OC_{1-4} alkylcyclohetalkyl, SC_{1-4} alkyl, SC_{2-4} alkylOC_{1-4}alkyl, SC_{1-4} alkylNR5R6, NR5R6, NR5COR6, $NR5SO_2R6$; and R5 and R6 are each independently H, C_{1-4} alkyl, or may be joined to form an optionally substituted 3-6 membered ring optionally containing an atom selected from O, S, NR7 and R7 is selected from H, C_{1-4} alkyl, aryl, hetaryl, C_{1-4} alkylaryl, C_{1-4} alkylhetaryl;

Z is selected from :



where R8 is selected from H, C_{1-4} alkyl;

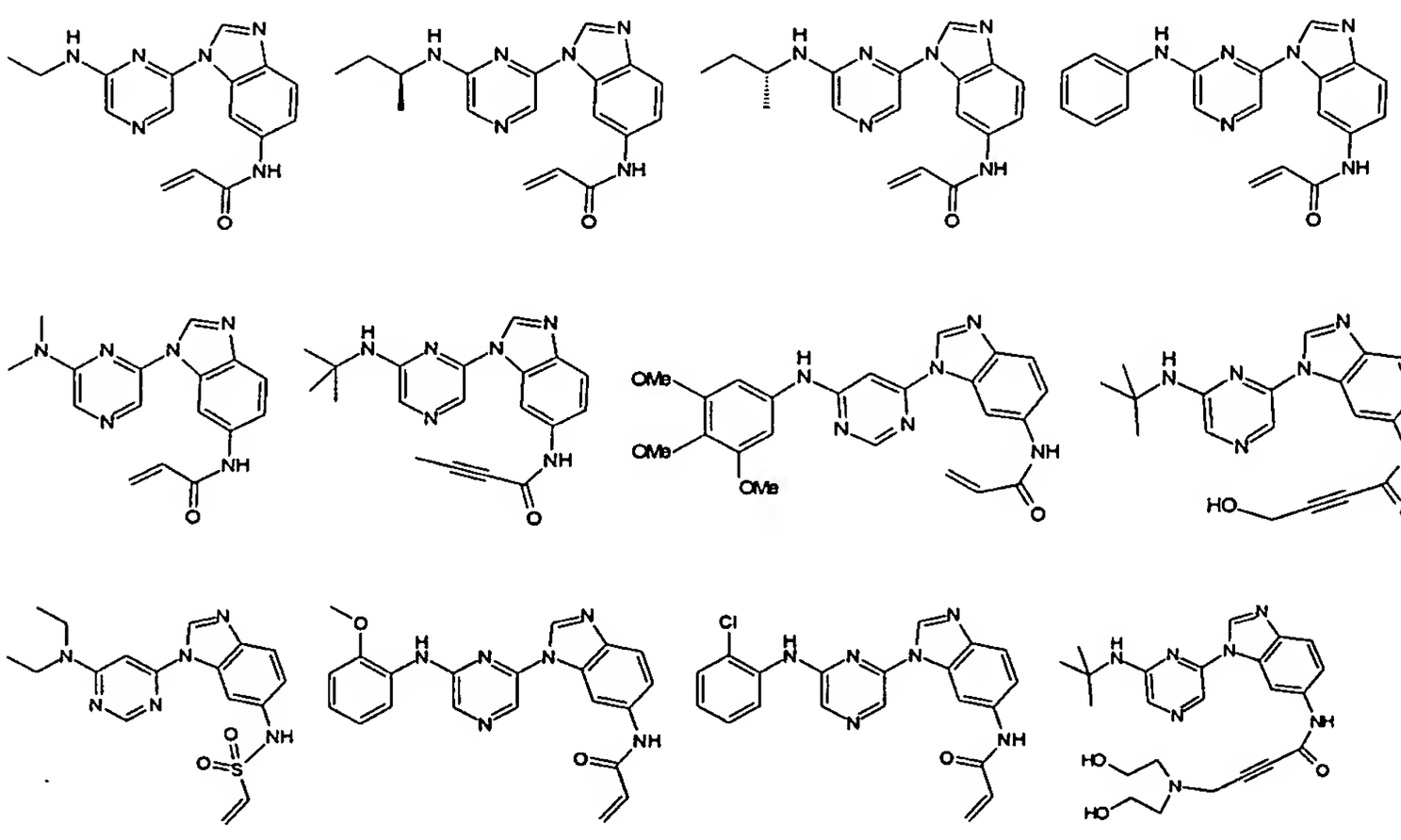
R9 and R10 are independently selected from H, C_{1-4} alkyl, C_{1-4} alkylNR12R13, C_{1-4} alkylOR12, C_{1-4} alkylhetaryl or may be joined to form a 5-8 membered ring [[~~optionally~~]] containing an atom selected from [[~~O, S,~~]] SO, or SO_2[[~~, NR14~~]];

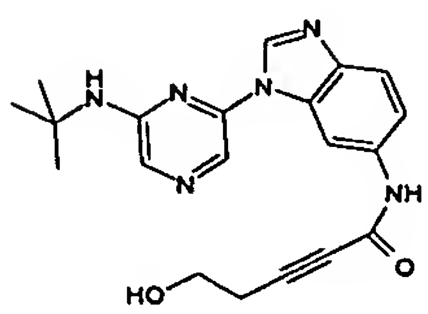
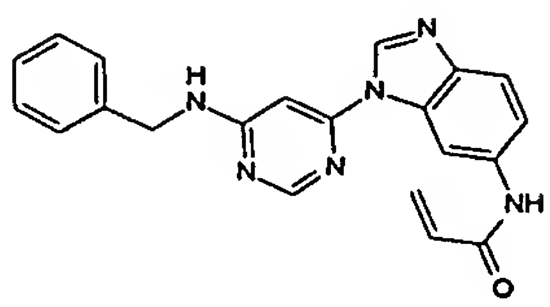
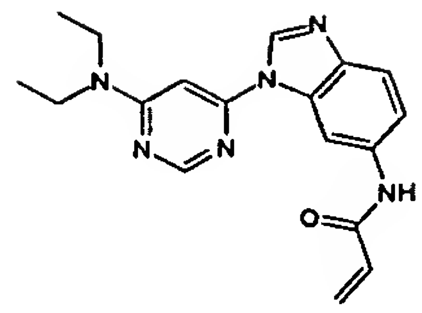
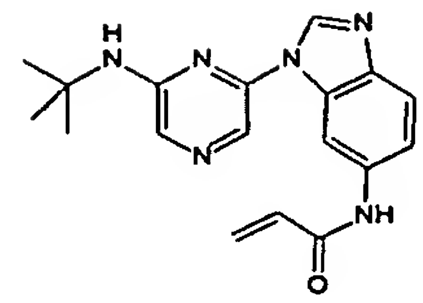
R11 is selected from OH, OC_{1-4} alkyl, NR12R13;

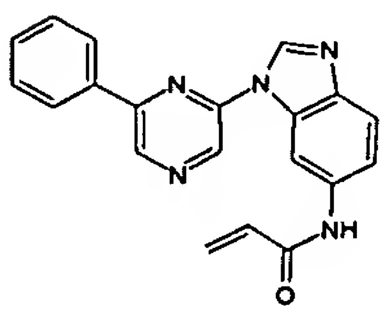
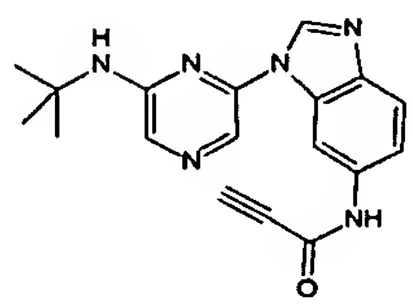
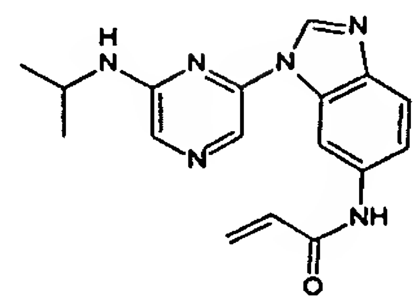
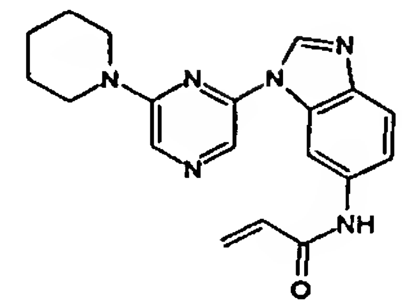
n is 0-4;

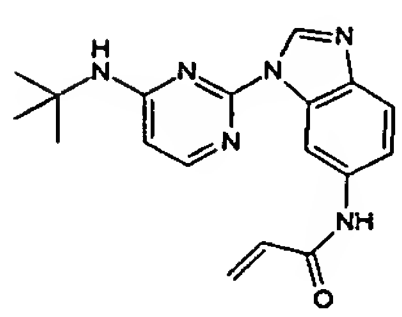
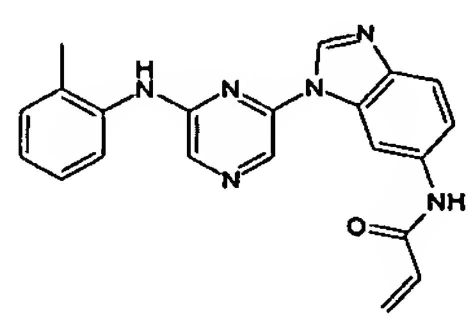
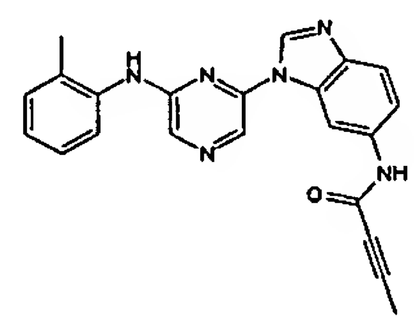
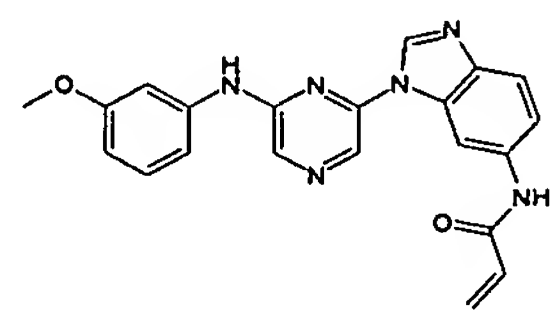
where: R12 and R13 are independently selected from H, C_{1-4} alkyl, or may be joined to form an optionally substituted 3-8 membered ring optionally containing an atom selected from O, S, NR14; and R14 is selected from H, C_{1-4} alkyl.

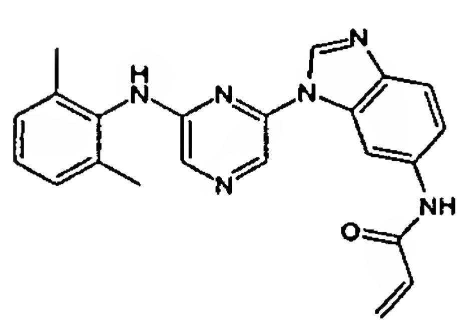
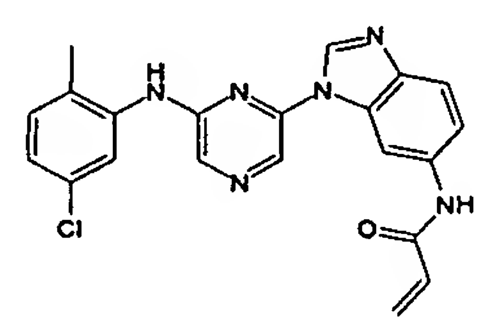
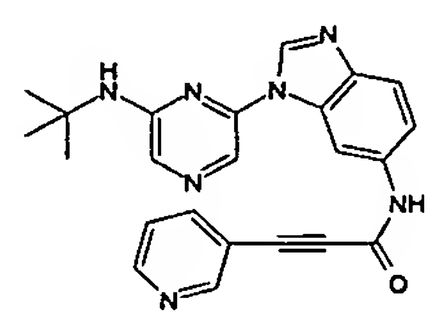
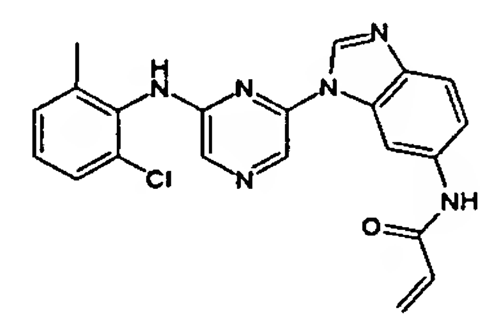
3. (currently amended) A compound ~~according to claim 1~~ selected from the group consisting of:

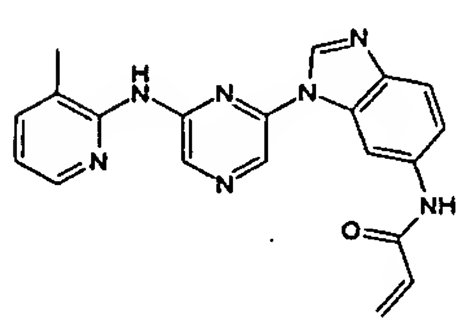
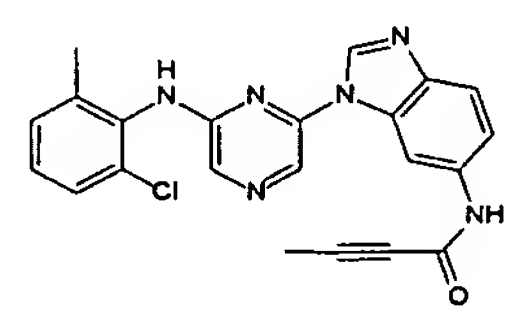
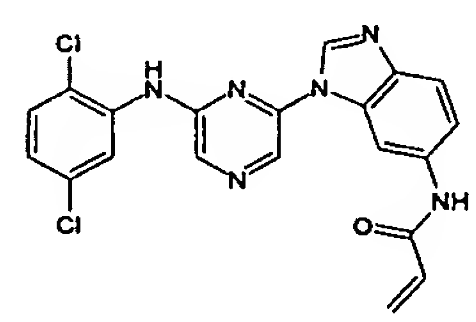
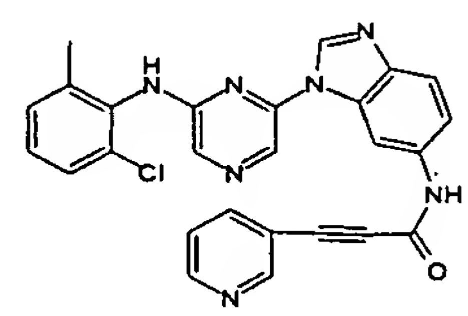


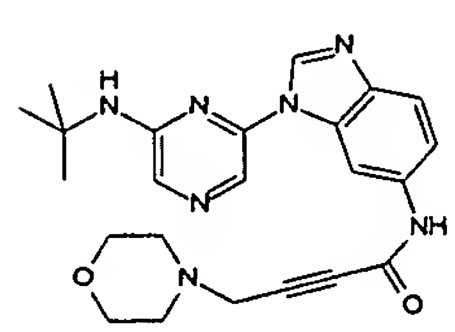
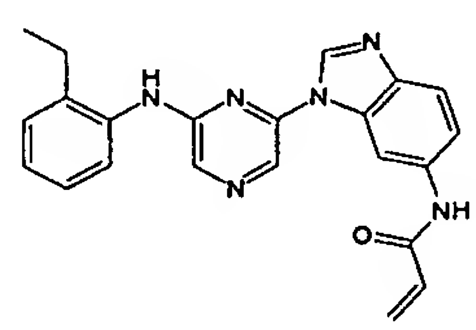
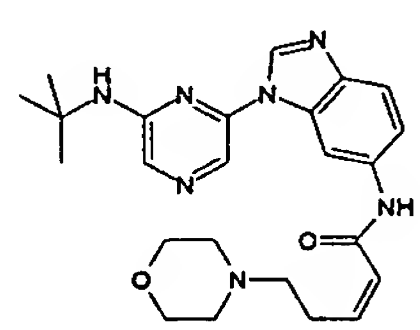
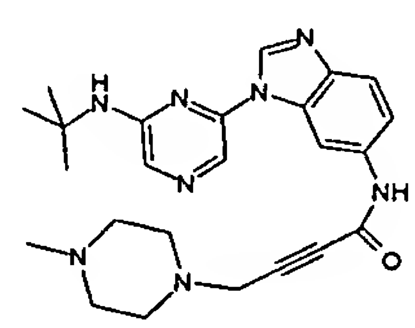





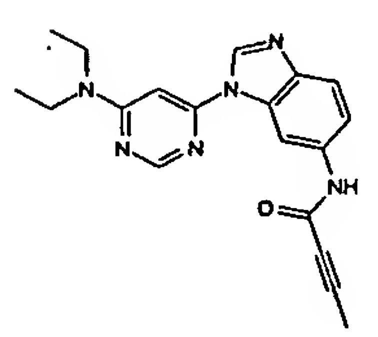
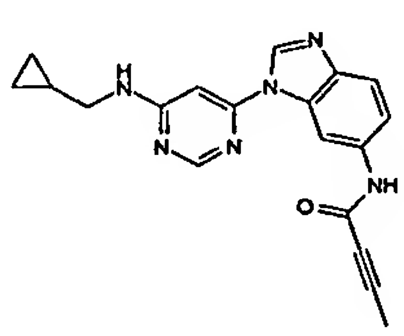
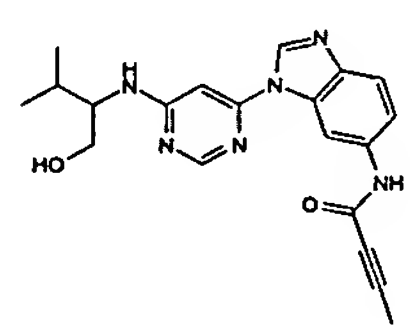
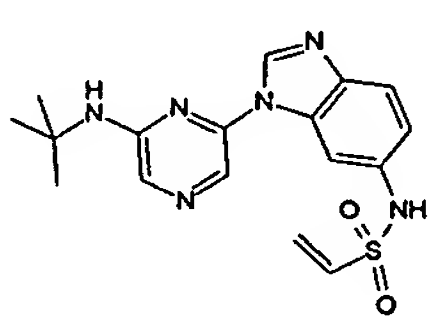





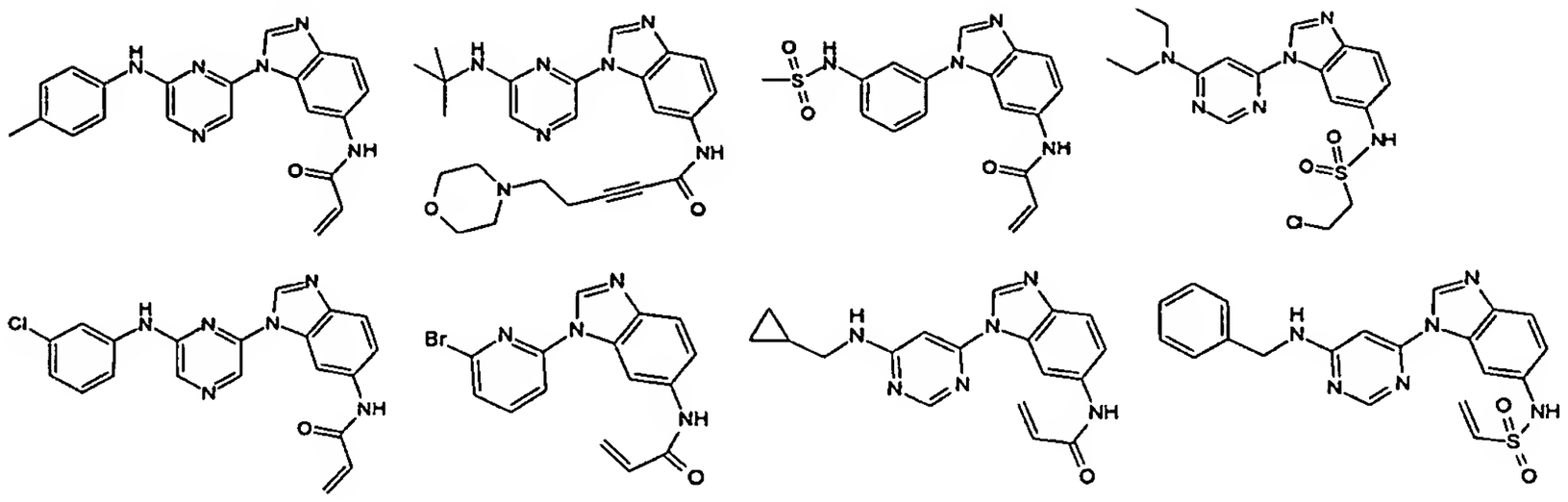





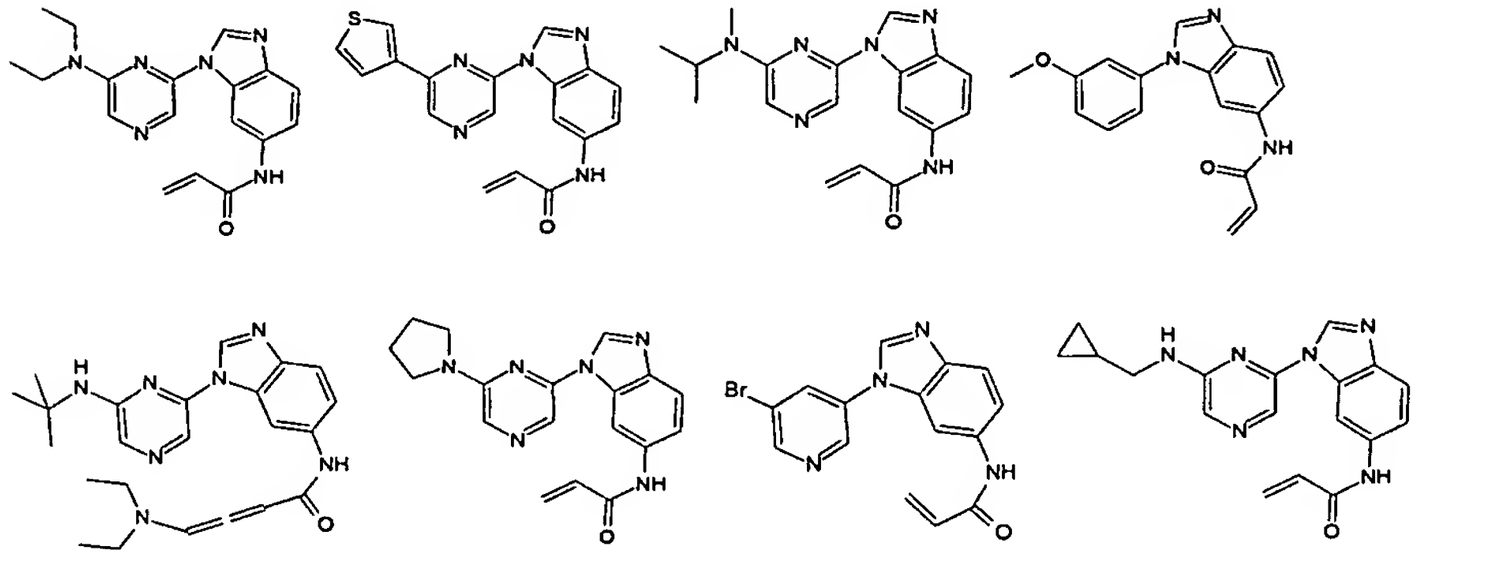





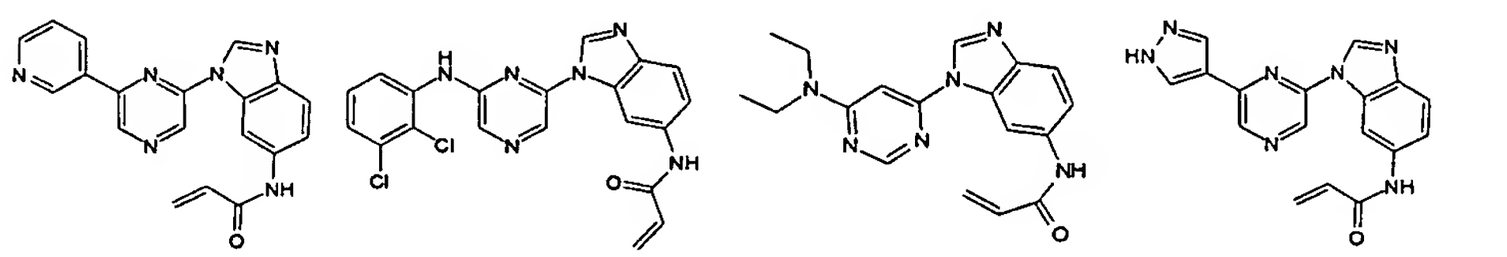





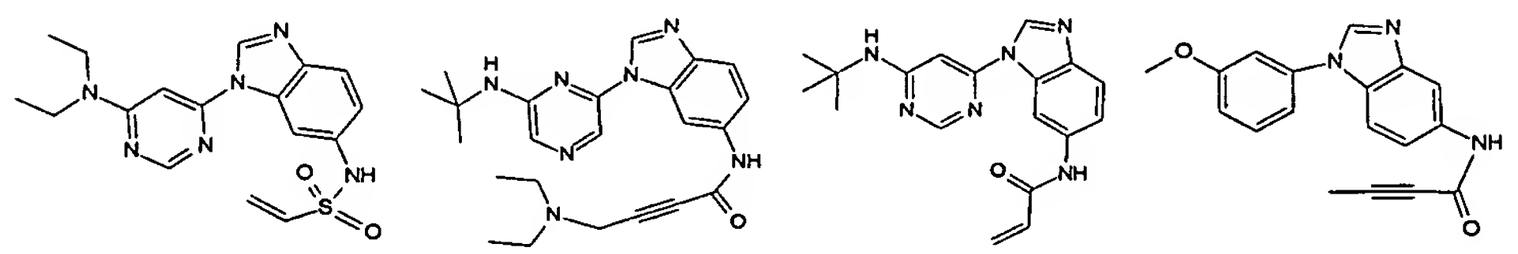





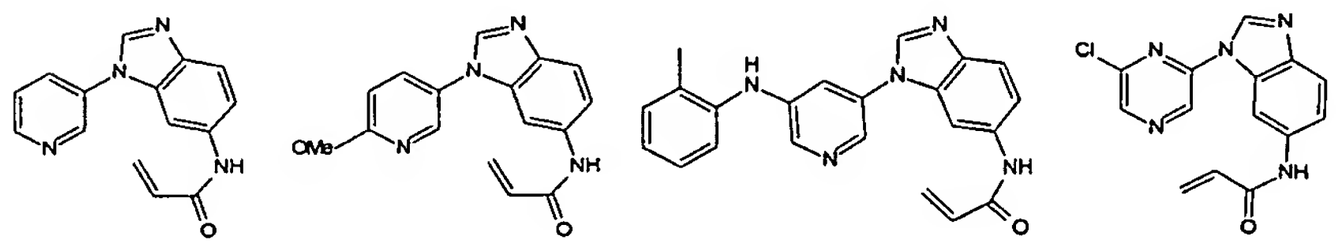





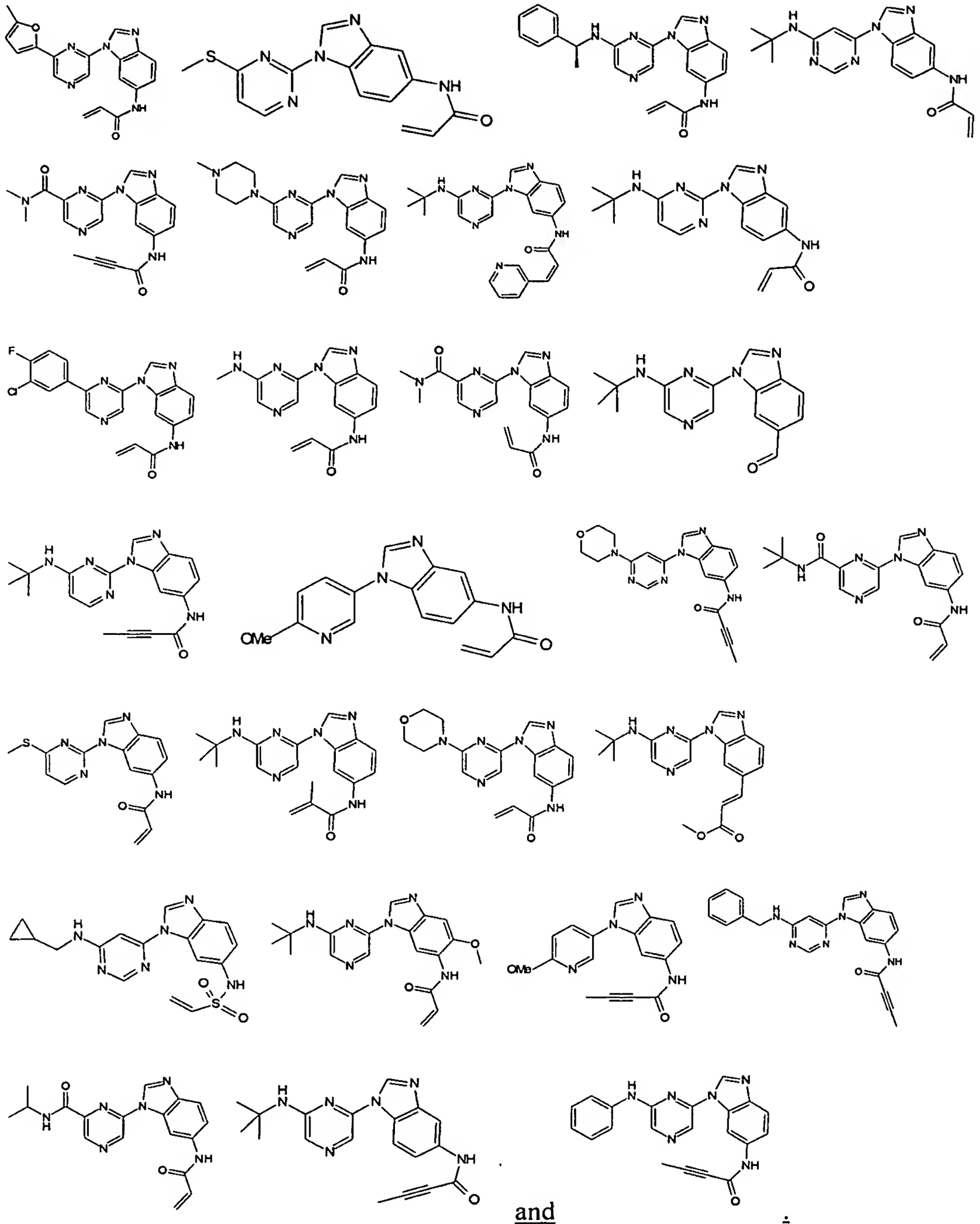












and .

4. (currently amended) A compound according to claim 1, ~~any one of claims 1 to 3~~ wherein the compound irreversibly inhibits JAK-3.

5. (currently amended) A compound according to claim 1, ~~any one of claims 1 to 4~~ wherein the compound selectively inhibits JAK 3 with respect to JAK 1 or JAK 2.

6. (currently amended) A composition comprising a carrier and a ~~at least one~~ compound according to claim 1 ~~any one of claims 1 to 5~~.

7. (currently amended) A method of treating a tyrosine kinase-associated disease state, the method comprising administering a therapeutically effective amount of a ~~at least one~~ compound according to claim 1 or a pharmaceutical composition thereof ~~any one of claims 1 to 5 or a therapeutically effective amount of a composition according to claim 6~~.

8. (canceled)

9. (currently amended) A method of suppressing the immune system of a subject, the method comprising administering a therapeutically effective amount of a ~~at least one~~ compound according to claim 1 or a pharmaceutical composition thereof ~~any one of claims 1 to 5 or a therapeutically effective amount of a composition according to claim 6~~.

10. (original) A selective JAK 3 inhibitor comprising a functionality wherein the functionality is positioned to selectively interact with the Cysteine residue close to the front lip of the ATP-binding cavity of JAK3 (CYS909) whereby the inhibitor is selective for JAK3 with respect to JAK2 and JAK1.

11. (original) A selective JAK3 inhibitor according to claim 10 wherein the functionality irreversibly binds with the Cysteine residue.

12. (currently amended) A selective JAK3 inhibitor according to claim 10 ~~or claim 11~~ wherein the functionality is an alkylating group.

13. (currently amended) A selective JAK3 inhibitor according to claim 10, ~~any one of claims 10 to 12~~ wherein the functionality is a Michael acceptor.

REMARKS

The claims have been amended to eliminate multiple dependencies and to conform to U.S. practice. No new matter has been added and entry of the amendment is respectfully requested.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 529282002300. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: July 11, 2006

Respectfully submitted,

By Emily Tongco

Emily Tongco
Registration No.: 46,473
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